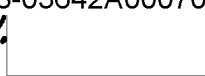




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2. File: ED-1838, AC Delay,
MK II.
15 September 1958

MEMORANDUM FOR THE RECORD

SUBJECT: MK II Limpet Placement tests on DD429

1. On 29 August 1958 the undersigned accompanied by  and  conducted placement tests of the MK II Limpet against the side of the DD429 at Stump Neck Maryland.

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2. Tests started with placement No. 16. One inert loaded MK II Limpet was armed with 2 MK II AC Delay firing devices less M-34 detonators. One AC Delay was fitted with a Green ampule and one with a Blue ampule. Estimated temperature of the water at time of placement was 65°F. The limpet was also fitted with an antiremoval device and placed by hand by leaning over the side of an 18 ft. power launch. The placement was firm and easily accomplished.

It was noted that in tightening the MK II AC Delays with the wrench provided that the O-ring washer became distorted and wedged out. One O-ring was broken in this manner.

Placement No. 17

One MK II Limpet, armed with MK II AC Delay, Gold ampule. Placed with long rod having pull release mechanism.

Placement was firm but some difficulty experienced in handling rod, pushing against side of ship and pulling release cord. O-rings, squeezed out of place.

Placement No. 18

One MK II Limpet with one AC Delay with Yellow ampule. Placed with pull ring long rod. Good placement. O-ring squeezed out of place.

Placement No. 19

One AC Delay, Red ampule, fitted to MK II Limpet. Used short placement handle. Limpet fell off handle prior to pulling pin up gun safety. Lost Limpet. No explanation for limpet falling off handle except that pin up gun may not have been seated properly allowing too much clearance for handle. Screws were finger tight but could have had gun tilted and improperly fitted.

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Placement No. 20

MK II Limpet with one MK II AC Delay Black ampule, pull ring long rod placement. Firm and easy placement.

Placement No. 21

MK II Limpet without any firing device using pull ring long rod. Attempt to place at maximum depth but could not make a release because of curve in side of ship. Pulled unit up to 3 ft. depth and obtained a good pin up.

Placement No. 22

MK II Limpet armed with old AC Delay Gold ampule, short handle placement quick and easy.

During the above tests placement No. 15 which was accomplished 27 days prior was removed and examined. This limpet had been fitted with an antiremoval device which functioned properly on removal. Examination showed no leakage into the device.

Conclustions:

As a result of these tests it is concluded that:

- a) **The long rod pull ring handle is superior to the old long rod but is awkward to handle in that 3 hands are needed to hold, place, and pull. This rod is not effective against the curved portion of the DD429.**
- b) **The antiremoval device will function properly after 27 days emersion.**
- c) **Tightening of the MK II AC Delay by wrench to the MK II Limpet fuze will distort the O-ring and probably ruins the seal.**

:dm

File - MK II AC Delay

cc: C/SDU

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